

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	The experiences of pregnant women with gestational diabetes mellitus: a systematic review of qualitative evidence protocol
<b>AUTHORS</b>	He, Jing; Wang, Yuchen; Liu, Yanqun; Chen, Xiaoli; Bai, Jinbing

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Dr Juliet Usher-Smith University of Cambridge, UK
<b>REVIEW RETURNED</b>	30-Sep-2019

<b>GENERAL COMMENTS</b>	<p><b>The experiences of pregnant women with gestational diabetes mellitus: a systematic review of qualitative evidence protocol</b></p> <p>Many thanks for asking me to review this paper. The authors describe plans for a qualitative literature review on the experiences of pregnant women with gestational diabetes (GDM). This is an important area and the review will be valuable and will provide contemporary insights into women's responses to diagnosis and management. However, there are a number of ways in which the paper could be improved.</p> <p>Major comments</p> <ol style="list-style-type: none"><li>1) Introduction: the Introduction is currently very long and reads more like a review than an introduction. I suggest that for this protocol paper the authors make it significantly shorter by ensuring that:<ol style="list-style-type: none"><li>a. They carefully select the specific information that helps the reader to understand why this review is important (for example, they could select key/common problems associated with GDM rather than listing all of them for both mother and baby [page 3, lines 29-40] and could remove the text around different clinical diagnostic criteria [page 3, line 60 to page 4 line 7]</li><li>b. It does not become like a Results section (this is particularly true from page 4, line 43 onwards; many of the papers that they cite here could be (and hopefully will be) included in the synthesis). Much of the second half of the introduction could therefore be removed.</li><li>c. They do not repeat themselves (for example, caesarean sections and risk of T2D are referred to twice in the second paragraph).</li><li>d. They end with a clear description of the aim of their</li></ol></li></ol>
-------------------------	---

	<p>review, including where the review fits into the wider literature – for example, will this review overlap with or update Devsam 2013 (“This review sought to understand women's beliefs, values, perceptions and experiences following diagnosis of GDM” and/or Parsons 2014 (“We aimed to gain a deeper understanding of women’s experiences of gestational diabetes...”)?</p> <ol style="list-style-type: none"> <li>2) Search strategy: at what stage will the reference lists of included studies be examined? This is described three times at the moment (page 7, lines 15, 22 and 26).</li> <li>3) Assessment of methodological quality: the authors say that “Studies that meet quality standards will be included...” (page 8, line 22). However, they give no details about what these quality standards are and why they will exclude studies that do not meet them? Some of these details are in the protocol on PROSPERO and should also be included here.</li> <li>4) Data synthesis: more details are required on how the meta-aggregation will be done. For example, “These categories are subjected to a synthesis...” (page 10, lines 28-30) is quite unclear. A reference for meta-aggregation is also needed. The method for synthesis described in the methods is also described differently there from the description in the abstract.</li> <li>5) Assessing certainty in the finding: more detail is needed on how the ConQual score will be developed (page 9, lines 50-52), providing details as for the earlier sections. A reference for ConQual is also needed. In addition, it might help to use Figure 3 earlier in the paper to summarise the process, before describing each element in detail in the text.</li> <li>6) The paper is missing a final discussion or conclusions section. There is also no dissemination plan.</li> <li>7) There is no PRISMA flow chart and I could not see a PRISMA checklist completed</li> <li>8) There are a number of typographical and grammatical errors in the text and the language needs reviewing throughout.</li> </ol> <p>Minor comments</p> <ol style="list-style-type: none"> <li>1) Abstract: the details of who will do which parts of the review are perhaps unnecessary here</li> <li>2) Strengths and limitations: the last two bullet points are unclear as currently written</li> <li>3) The Prospero registration details are given at the end of the abstract but should also be mentioned within the methods section.</li> </ol> <p>It would also be worth the authors considering in advance how they will analyse studies where only part of the paper meets the inclusion criteria (there may be papers where experiences of both pregnant women and their clinicians, or both pregnancy and postpartum experiences are reported concurrently).</p>
--	--

<b>REVIEWER</b>	Christopher Nolan Australian National University, Australia
<b>REVIEW RETURNED</b>	01-Nov-2019

<b>GENERAL COMMENTS</b>	<p>This m/s presents a protocol for a systematic review of published work relating to the experience of gestational diabetes.</p> <p>Main comments:</p> <p>1) The purpose of publishing a systematic review protocol is to have the study question and methodology decided 'a priori'. The full search strategy to be used, however, has not been decided upon- a preliminary one (as an example) has been provided in Appendix 1.</p> <p>2) The objectives are not clear- "This study will help understand physiological and psychological changes and family life experiences of pregnant women with GDM, as well as why their blood glucose is not well controlled and the difficulties they face and the help they need." It is not clear how "physiological changes" and "why blood glucose is not well controlled" are to be related to the "psychological changes" within the research protocol. The objectives need to be better defined in the abstract.</p> <p>3) Pre-eclampsia and pregnancy-induced hypertension are to be exclusion criteria, but they are frequent complications of GDM that treatment is trying to prevent. Why are these conditions to be used as exclusion criteria? How is this to be done? Published papers are unlikely to indicate which of the subjects had these conditions.</p> <p>4) The Joanna Briggs methodology may provide guidance on quality of papers, but how is avoidance of bias (e.g. focus groups may select women who have had particular experiences) going to be handled?</p>
-------------------------	---

### VERSION 1 – AUTHOR RESPONSE

To reviewer: 1

Major comments

Question:1a 1: The author has kept key complications associated with GDM for mothers and infants, and remove others.

2: The author has removed tests around different clinical diagnostic criteria.

Question:1b The author has removed parts of the introduction like a results section of review.

Question:1c The author has deleted the duplication of cesarean section and T2DM.

Question:1d The author has added the purpose and significance of this review to the end of the introduction.

Question:2 The author has deleted the repetition of "the reference lists of included studies be examined".

Question:3 The author has answered the evaluation method of JBI-QARI and the inclusion criteria of the research report in detail.

Question:4 1: The author has complemented the steps of integration and gives an example.

2: The author has modified the differences between the synthesis method described in the method and the description in the abstract.

Question:5 The author has added conquering references and detailed tables.

Question:6 The author has added the discussion and communication plan sections.

Question:7 The PRISMA statement was used in the systematic evaluation of the quantitative study, and the ENTREQ statement was used in the qualitative study. The author has added the ENTREQ statement to the article.

Question:8 The author has corrected many grammar problems.

Minor comments

Question:1 Abstract: The author has deleted the specific division of labor of reviewers.

Question:2 Strengths and limitations: The author has modified the last two unclear points.  
 Question:3 The author has added PROSPERO registration information to the methods section.

To reviewer: 2

Question:1 The full search strategy has been provided in Appendix 1.

Question:2 The author has modified the purpose of the abstract section.

Question:3 The author has reviewed the recruits for published studies, discussed the exclusion criteria as inappropriate and deleted.

Question:4 A qualitative study of the experiences of GDM women in focus groups, after meeting the quality inclusion criteria, is planned to incorporate it into information integration. Pregnant women in focus groups may have special encounter compared to women who usually only suffer from GDM. This may be a bias, but if focus group studies are included, we will discuss these special cases in detail in a future systematic review of qualitative evidence.

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Juliet Usher-Smith University of Cambridge, UK
<b>REVIEW RETURNED</b>	01-Dec-2019

<b>GENERAL COMMENTS</b>	<p>The authors have made substantial changes to the manuscript and it is now much clearer. In particular, the background and aims now make it much easier to understand the rationale for the review and what they propose to do.</p> <p>In making those revisions, however, they have introduced a number of further changes to the structure and content that do not help the clarity of the paper.</p> <p>In particular, the structure of the methods section needs revising (it is unclear why they changed it). The heading for 'Methods' should come before 'Inclusion criteria', 'Types of participants', etc. and the information paragraph currently immediately under 'Methods' repeats information provided elsewhere under the subheadings. The last two sentences of 'Study selection' also appear to be about quality assessment rather than study selection.</p> <p>In the section under 'Data synthesis', they have added an example of synthesising findings: "For example, findings included “beliefs about healthcare” and “wishing to receive caring GDM care” that can be summarized as a category of “the need for professional help”. The finding about “having a supportive environment” will be summarized as a category for “family support”. Then, the two categories are subjected to create a set of synthetic results called “difficulties and needs of women with GDM”. This suggests they have already begun the data extraction and synthesis and it is unusual to include this level of detail in the protocol for a qualitative synthesis. I would suggest the authors provide a more general description of the method they will use for the synthesis rather than include these specific categories.</p> <p>A number of sentences within the manuscript would also benefit from revision:</p> <p>1. pg 3, line 49/50: "For women with GDM, 35-50% of those living with GDM may have recurrence GDM in subsequent pregnancies.<sup>14</sup>" - it just comes at the end of a paragraph where GDM is included at least once in every sentence.</p>
-------------------------	---

	<p>2. pg 4, line 28/29: "Due to the poor prognosis and long-term effects of GDM, the physiology and psychology of pregnant women diagnosed with GDM during pregnancy significantly altered." - almost makes sense, but I don't really know what this means...</p> <p>3. pg 5, line 14/15: "The review will consider studies that focus on qualitative studies including, but not limited to, study designs such as phenomenology..."</p>
--	--

## VERSION 2 – AUTHOR RESPONSE

### Question1

- 1: The author has completed the position adjustment of Methods before 'inclusion criteria'.
- 2: For registration number of PROSPERO, the author has removed duplicate information from 'Method'.
- 3: In the last two sentences of "Study selection," the author has revised 'a critical evaluation process' to 'a critical screening process.' The screening results and evaluation results of the study need to be conducted by two reviewers to reach a consensus.

### Question2

In the section under 'Data synthesis', the author has modified the example section.

### Question3

The author has modified the expression for the ' 1. pg 3, line 49/50'.

### Question4

The author has deleted the expression of the ' pg 4, line 28/29'.

### Question5

The author has revised the expression of the 'pg 5, line 14/15'.

## VERSION 3 – REVIEW

<b>REVIEWER</b>	Juliet Usher-Smith University of Cambridge, UK
<b>REVIEW RETURNED</b>	16-Dec-2019
<b>GENERAL COMMENTS</b>	The authors have addressed all my comments in detail.